3 Alternatives



A male canvasback finds security in a refuge wetland.

Alternatives are different approaches for management of the 12 national wildlife refuges designed to resolve issues; achieve the refuges' purposes, vision, and goals; and help fulfill the mission of the Refuge System while complying with current laws and regulations and policies. The NEPA requires an equal and full analysis of all alternatives considered for implementation.

This chapter describes three management alternatives for the refuges: alternative A (current management, "no action"); alternative B (moderately enhanced management, proposed action); and alternative C (enhanced management).

This draft CCP and EA was completed at the programmatic level (overall guidance covering multiple units), rather than as a management plan for each refuge. This was the most logical approach given the following circumstances:

- Twelve national wildlife refuges are covered in the plan.
- There is a mixture of fee-title and easement authorities.

- There is a similar purpose, vision, and goal for each refuge.
- All units are located throughout the state of North Dakota.

3.1 Alternatives Development

Alternatives were formulated to address the significant issues, concerns, and problems identified by the Service, the public, and the governmental partners during public scoping and throughout the development of the draft plan.

This chapter contains the following sections:

- elements common to all alternatives
- description of alternatives
- summary of alternatives and environmental consequences (table 3)

The three management alternatives represent different approaches to protect and restore fish, wildlife, plants, habitats, and other resources. Alternative A, no-action alternative, describes ongoing refuge management.

The no-action alternative is a basis for comparison with alternatives B and C. Alternative B is the Service's proposed action and basis for the draft CCP in chapter 6.

The planning team assessed biological conditions and external relationships affecting the refuges. This information contributed to the development of alternatives, each of which presents a unique approach for addressing long-term goals. Each alternative was evaluated based on expected progress in meeting the vision and goals of the refuges and how it would address core habitat and wildlife issues and threats. Where data are available, trends in habitat and wildlife are evaluated, and the environmental consequences of each alternative are projected.

3.2 Elements Common to All Alternatives

A number of elements are common to all three alternatives. The need to maintain suitable habitat for a wide range of migratory bird species, especially those species of management concern, is common throughout.

Management of upland habitats includes the potential use of an array of practices (fire, grazing, chemicals, and biological control) in all alternatives. Across all alternatives, management of disturbed uplands (lands that have been, or are currently being, cropped, farmed, broken, or seeded to a native or tame grass mixture) focuses on improved habitat quality for migratory birds.

The alternatives include cultural resource evaluations in response to activities that are "undertakings" under section 106 of the National Historic Preservation Act (NHPA). The Service would comply with the NHPA and other pertinent cultural resource laws. In addition, the Service would protect where possible resources eligible to the National Register of Historic Places.



Management and monitoring focus on preservation of the diversity of the prairies.

Visitor services, such as workshops and enhanced outreach, would be provided to area schools and the public to as full an extent as possible. Maintaining support, on refuges that are open, for hunting, fishing, wildlife observation and photography, and environmental education and interpretation are common to all the alternatives.

The monitoring and research efforts in all alternatives focus on improving the Service's knowledge of how best to control invasive plants and increasing the intensity and extent of upland and wetland vegetation monitoring.

3.3 Description of Alternatives

Management actions to advance the mission of the Refuge System and the purpose and vision of the 12 refuges are described below. The alternatives reflect options to address significant threats, problems, and issues raised by public agencies, private citizens, and interested organizations.

Each alternative differs in its ability to achieve longterm habitat and wildlife goals. However, each is similar in its approach to managing the refuges.

Each alternative

would pursue the goals outlined in chapter 2; would protect and enhance a diverse assemblage of habitats;

would be consistent with the purposes of the refuges and the mission and goals of the Refuge System.

ALTERNATIVE A—CURRENT MANAGEMENT (No Action)

Under alternative A, management activities being conducted by the Service throughout the 12 refuges would not change. It provides the baseline against which to compare other alternatives. It is also a requirement of the NEPA that a no-action alternative be addressed in the planning process.

The Service would not develop any new management, restoration, or visitor services programs for the refuges. Staffs would not expand or change current habitat and wildlife management practices conducted for the benefit of waterfowl, migratory birds, and other wildlife. Staffs would conduct monitoring, inventory, and research activities at their current level (limited, issuedriven research and limited monitoring and inventory of birds and vegetation). Funding and staff levels would not change and programs would follow the same direction, emphasis, and intensity as they do at present.

Habitat and Wildlife

The current management of wildlife habitat and associated species is based on high-, medium-, and

low-priority areas at the refuges. Currently, only high-priority tracts receive consistent management. Acquisition efforts by the division of realty focus on high-priority tracts, and those are only from willing private landowners.

There is a concerted control effort for invasive plants recognized by the state and county. Habitat management at high-priority tracts addresses invasive plants of ecological concern. Refuge staffs use prescribed fire, farming (see appendix D), grazing (see appendix D), and invasive plant control to maintain and improve native prairie and tame grass units.

Refuge staffs would continue to monitor energy development and evaluate road and pad development on a case-by-case basis. Staffs would monitor for contaminant spills and direct cleanup by the power

Under this alternative, the staffs would continue to monitor and document the presence and use of refuge lands by federally listed species such as piping plovers and whooping cranes, as well as American white pelicans. The staffs would continue to impose area closures to public use in order to protect federally listed species using refuge lands, especially during nesting season.



Blazing star is a native prairie wildflower.

Monitoring and Research

Staffs would complete Service-mandated surveys on habitat and wildlife within specified timeframes and would continue to conduct baseline monitoring on high-priority tracts.

The current wildlife-monitoring efforts would continue: (1) annual surveys of various bird groups (for example, breeding waterfowl and migrant shorebirds); (2) periodic monitoring of waterfowl- and colonial-waterbird-nesting effort and success; and (3) 4-square-mile waterfowl pair counts.

Monitoring and inventory of vegetation—through belt transect monitoring of management effects and "Refuge Lands Geographic Information System" (RLGIS) habitat mapping—would continue. Vegetation line transects would continue periodically on a limited number of refuge units to track trends in progress being made using management activities to improve native prairie habitat.

Cooperative research efforts with other agencies and organizations would continue. Staffs would continue to use available information and sound science to make informed management decisions.

Cultural Resources

The effect on cultural resources would be evaluated in response to activities that are "undertakings" under section 106 of the NHPA. The Service would comply with the NHPA and other pertinent cultural resource laws. In addition, the Service would protect where possible resources eligible to the National Register of Historic Places.

Visitor Services

For refuges open to hunting (Audubon, Chase Lake, Lake Alice, Lake Nettie, and Zahl) and fishing (Audubon and Lake Ilo), those programs would continue with season dates paralleling the regular statewide seasons. Special use permits would continue to be used to regulate trapping to meet predator management objectives.

Access is limited to the refuges' public use roads and foot traffic on all Service lands. Some refuges are open to limited wildlife-dependent recreational uses, such as only hunting and fishing. Stump Lake and White Lake national wildlife refuges are closed to all public use.

Visitor services events and workshops with such groups as school districts, youth groups, and conservation groups are conducted on a multiyear rotation among refuges.

Refuge informational brochures and publications would continue to be updated periodically. Public use facilities including displays, signage, and brochures would be maintained at each refuge's headquarters and throughout each refuge.

Media outreach through newspaper articles and radio announcements would continue to be occasionally made.

Partnerships

The refuge staffs would work to preserve existing partnerships need to address resource information needs, protect and enhance habitat, and promote wildlife-dependent recreational use, education, and outreach. Current partners include local private landowners—for management, acquisition of grassland and wetland, weed initiatives, and outreach.

The refuges also would continue their partnerships for biological and public outreach with government agencies such as U.S. Geological Survey (USGS) and NDGF and with nongovernmental organizations such as Ducks Unlimited.

Operations

The funding and staff resources would remain at current levels to meet the necessary legal and obligated mandates and to provide management at the high-priority tracts. Operations for the refuges would continue to include maintenance of vehicles and other equipment in good working condition to achieve management goals. An adequate law enforcement presence would be provided for visitor safety and facility and wildlife protection.

ALTERNATIVE B—MODERATELY ENHANCED (PROPOSED ACTION)

Under alternative B, wildlife habitat management would provide for enhanced wetland and upland management, where warranted, on refuge lands. Management objectives for various habitat types would be based on habitat preferences of groups of target species such as waterfowl, migratory shorebirds, grassland bird species, and priority species. Refuge staffs would focus on high- and medium-priority tracts. The refuge staffs would carry out compatible production enhancement techniques for targeted migratory bird populations.

The refuge staffs would maintain existing environmental education and visitor services programs, with additional waterfowl emphases. The Service proposes, at a future date, a new environmental learning center for Audubon National Wildlife Refuge and interpretive panels for Lake Alice National Wildlife Refuge.

Habitat and Wildlife

Management of wetland and upland habitats would be driven by the habitat needs of a group of target species (for example, waterfowl, migratory shorebirds, grassland bird species, and priority species). The focus of the refuge staffs would be to maintain and enhance native prairie through enhanced management at highand medium-priority tracts to address invasive plants of ecological concern, in order to provide quality habitat.

Old croplands would be managed for the same target species. Management would be an ongoing process to convert unsuitable nesting habitat (such as cropland; degraded dense, nesting cover [DNC]; monotypic coolseason tame grass stands) to a diverse native plant mixture. Species included in the plant mix would be

based on historical vegetative composition, soil structure, and requirements of the target species. Established native grass stands and the remainder of the disturbed uplands would be periodically managed to rejuvenate grass, reduce litter accumulations, and control invasive plants through (1) haying (see appendix D), (2) grazing (see appendix D), (3) prescribed burning, and (4) chemical or biological treatments.

Invasive and planted woody vegetation would be managed in a way that provides the greatest overall benefit to a select group of targeted species. This alternative would allow for the removal of trees and shrubs if refuge staffs decided that it is the most appropriate management for the benefit of target species.

Under this alternative, the Service's Habitat and Populations Evaluation Team (HAPET) in Bismarck, North Dakota, would help refuge staffs to identify high- and medium-high-priority habitats for target species. The Service's division of realty would focus acquisition efforts on high-priority tracts to buy in fee title, such as "roundouts" (odd shapes in boundaries that are "straightened" by the purchase of land), from willing selling landowners.

For targeted migratory bird populations, the refuge staffs would incorporate compatible production enhancement techniques such as island trapping for predators and artificial nesting structures.

As in alternative A, the staffs would continue to monitor and document the presence and use of refuge lands by federally listed species such as piping plovers and whooping cranes, as well as American white pelicans. The staffs would continue to impose area closures to public use in order to protect federally listed species using refuge lands, especially during nesting season.

Monitoring and Research

Current monitoring and research would continue as described for alternative A. Refuge staffs would also complete some baseline monitoring at high- and medium-priority tracts. The staffs would participate in landscape-level analysis to (1) guide and promote management-level research to improve habitat management practices, and (2) monitor for improved success of seeded areas to native grasses (both in composition and structure), as well as monitoring control of nonnative grasses (such as Kentucky bluegrass and smooth brome) and other invasive plants.

Cultural Resources

As in alternative A, the effect on cultural resources would be evaluated in response to activities that are "undertakings" under section 106 of the NHPA. The Service would comply with the NHPA and other pertinent cultural resource laws. In addition,

the Service would protect where possible resources eligible to the National Register of Historic Places.

Visitor Services

This alternative would expand the current level and quality of opportunities and facilities for environmental education and interpretation to meet the needs of a wide array of target audiences of all abilities. Hunting, fishing, wildlife observation, and photography uses would be similar to alternative A.

Visitor services events and workshops with such groups as school districts, youth groups, and conservation groups would be conducted on a 3-year rotation among refuges (every 3 years, a different refuge would conduct these activities). Workshops would emphasize waterfowl and migratory bird identification with school groups and teachers.

Media outreach with local newspapers and radio stations would be conducted annually. Refuge brochures and publications would be reviewed annually and updates completed as needed.

All visitor services facilities would be reviewed and, if necessary, upgraded to meet Service standards. The Service proposes, at a future date, a new environmental learning center for Audubon National Wildlife Refuge and kiosks and interpretive panels for Lake Alice National Wildlife Refuge. In addition, Lake Alice National Wildlife Refuge would explore opening the lake to ice fishing and, if the floodwater recedes in the next 15 years, restoration of visitor service facilities. Kellys Slough National Wildlife Refuge would expand its environmental education programs.



Duck hunters get an early start on a peaceful morning.

Partnerships

Under this alternative, existing partnerships would be expanded to address resource information needs for a broad group of wildlife species such as waterfowl, shorebirds, and songbirds. This alternative would encourage continued work with local, state, and federal agencies to explore new avenues to meet the goals. Neighboring, private landowners would be targeted

for partnerships, which the Service would expand to enhance waterfowl habitats within the refuges. This alternative would also promote developing and fostering partnerships with local communities, such as "friends groups," to inform the public of refuge programs and special events.

Operations

This alternative would require an increase in refuge operations to address program needs for the "modified management" strategy. Increased funding for staff, equipment, and supplies would be needed to support management of priority resources. Law enforcement would be provided for visitor safety and facility and wildlife protection.

ALTERNATIVE C—ENHANCED MANAGEMENT

Under alternative C, refuge staffs would apply more intensive and widespread management of the native prairie and wetland complexes. Refuge staffs would seek out restoration projects that expand and return native grasslands to quality native prairie. This alternative has the potential to provide management options that address habitat requirements and needs of specific groups of water-dependent birds (for example, waterfowl and shorebirds).

The staffs would develop new environmental education and visitor services programs. The Service proposes, at a future date, a new environmental learning center for Audubon National Wildlife Refuge and interpretive panels are planned for Lake Alice National Wildlife Refuge.

Habitat and Wildlife

All refuge tracts would receive consistent management. The staffs would intensively manage the most intact ecosystems of native prairie and wetland, which are more likely to support a wide range of migratory bird species, especially those of management concern such as northern pintail and marbled godwit. Returning grasslands to quality native prairie would be a priority. Management would emphasize restoration of representative examples of native mixed- and tallgrass prairies, including healthy grasslands to benefit ground-nesting species of migratory birds.

Management of disturbed upland habitats would be driven by the needs of waterfowl and shorebirds. Under this alternative, old cropland sites and badly degraded native prairies would be lowest priority, but would be managed to attract high densities of waterfowl species that use DNC; efforts to increase nest and brood survival would focus on these tracts.

The Service would continue fee-title and easement expansion acquisition, along with enforcement through proactive GIS mapping. Acquisition efforts would be directed at high-priority easements, mainly with fee-title purchase of "roundouts."

Legally identified, nonnative, invasive plants would be managed on priority tracts, allowing for management actions that benefit a specific wildlife group. This alternative would allow for the removal of existing nonnative trees and shrubs for the benefit of another wildlife group such as grassland-dependent songbirds, upland-nesting shorebirds, and waterfowl.

As in alternative A, the staffs would continue to monitor and document the presence and use of refuge lands by federally listed species such as piping plovers and whooping cranes, as well as American white pelicans. The staffs would continue to impose area closures to public use in order to protect federally listed species using refuge lands, especially during nesting season.

Monitoring and Research

The refuges' monitoring and research activities would parallel those in alternative B, with the addition of answering specific management questions. Research money would be available for graduate student work and self-directed research projects.

The following research would be done:

- Annually conduct vegetation transects on native prairie habitats.
- Conduct a research project on reseeding uplands to native mixes.
- Monitor water quality; specifically assess upstream threats (concentrated animal-feeding operations and the air base).
- Conduct waterfowl population and density surveys.
- Conduct cooperative (with NDGF) upland bird and deer surveys.
- Conduct a reptile and amphibian inventory.

Cultural Resources

As in alternatives A and B, the effect on cultural resources would be evaluated in response to activities that are "undertakings" under section 106 of the NHPA. The Service would comply with the NHPA and other pertinent cultural resource laws. In addition, the Service would protect where possible resources eligible to the National Register of Historic Places. The refuge staffs would develop educational programs and interpretive opportunities for the public.

Visitor Services

The current level and quality of environmental education and interpretation opportunities and facilities would be expanded to meet the needs of a wide array of target audiences of all abilities. The refuge staffs would develop programs to enhance wildlife-dependent recreational use, outdoor classroom activities, and interpretive exhibits and displays.

Visitor services events such as teacher workshops and waterfowl identification would be expanded over current levels and would be conducted annually by refuge staffs. Brochures and publications would be reviewed and renewed annually. New publications and educational materials would be developed to aid in the interpretation of the sights and sounds within the refuges.

Outreach would include the media and partner groups such as wildlife clubs and nonprofit conservation groups. Efforts to give presentations to the area public and schools would be a priority.

All visitor services facilities would be reviewed and, if necessary, upgraded to meet Service standards. The Service proposes, at a future date, a new environmental learning center for Audubon National Wildlife Refuge and kiosks and interpretive panels for Lake Alice National Wildlife Refuge. Lake Alice National Wildlife Refuge would explore opening the lake to ice fishing. If floodwaters recede in the next 15 years, the Service would restore visitor service facilities at Lake Alice National Wildlife Refuge. The Service would expand hunting-related outreach to the public about opportunities at Lake Alice National Wildlife Refuge. Kellys Slough National Wildlife Refuge would expand its environmental education programs.

Partnerships

Partnership development and management would parallel that in alternative B. Additionally, existing partnerships with the local public and NDGF would be expanded. New partnerships would be developed to increase collaboration with community members ("friends groups") who have an appreciation for and interest in the welfare of the refuges.

Operations

As in alternative B, this alternative would require an increase in refuge operations to address program needs for the "modified management" strategy. Increased funding for staff, equipment, and supplies would be needed to support management of priority resources. Law enforcement would be provided for visitor safety and facility and wildlife protection.

3.4 Comparison of Alternatives

Table 3 summarizes the actions and predicted consequences of each alternative.

ALTERNATIVE A

Current Management (No Action) Current funding, staff, and programs.

ALTERNATIVE B

Moderately Enhanced Management (Proposed Action) Management of high- and medium-priority habitats. Improved visitor services.

ALTERNATIVE C

Enhanced Management

Intensive habitat management with migratory bird emphasis. Management of all uplands. Improved and expanded visitor services and outreach.

Habitat and Wildlife—Actions

Prioritize refuge tracts for management, with only highpriority tracts receiving consistent management.

Continue native species restoration at the current level.

Use prescribed fire, grazing, farming, and invasive plant control to maintain and improve native prairie and tame grass units.

Manage legally identified invasive plants at high-priority refuge tracts.

Focus acquisition on high-priority tracts; use mostly conservation easements.

Prioritize refuge tracts for management, with only high- and medium-priority habitats receiving consistent management.

Identify and restore degraded vegetative tracts to native grass species.

Increase water management capability.

Apply compatible production enhancement techniques for targeted migratory bird populations.

Manage legally identified invasive plants at high- and medium-priority tracts.

Manage all refuge tracts consistently.

Apply intensive management on native prairies and wetlands in the most intact ecosystems, which are more likely to support a wide range of migratory bird species.

Enhance water management capability and manage all wetlands for waterfowl and shorebirds.

Incorporate compatible production enhancement techniques for targeted migratory bird, such as island trapping for predators and hen houses.

Manage legally identified invasive plants at all fee-title tracts.

Habitat and Wildlife—Environmental Consequences

The current productivity of wetland and upland vegetation communities would be maintained in high-priority refuge tracts.

The current support of waterfowl, shorebird, and upland species use would be maintained.

There would be a gradual longterm deterioration of habitats in medium- and low-priority tracts. The productivity of vegetative wetland and upland communities would be improved in all refuge tracts for bird species migration, breeding, and recruitment.

Native prairie grass and forb conditions for targeted species would improve.

The ability to mimic natural wetland cycling would be enhanced through increased water management.

Waterfowl recruitment would be increased through improved habitat conditions and control of predators.

Additional habitat in high-priority tracts would be protected through acquisition.

The productivity of vegetative wetland and upland communities would be improved in all refuge tracts for bird species migration, breeding, and recruitment.

Management of intact landscapes would provide a structural mosaic of native vegetative communities with less fragmentation, which would lead to less invasive plant species.

The occurrence of all invasive plants on all refuge lands would be mapped.

ALTERNATIVE A

Current Management (No Action)
Current funding, staff, and programs.

ALTERNATIVE B

Moderately Enhanced
Management (Proposed Action)
Management of high, and medium priority

Management of high- and medium-priority habitats. Improved visitor services.

ALTERNATIVE C

Enhanced Management

Intensive habitat management with migratory bird emphasis. Management of all uplands. Improved and expanded visitor services and outreach.

Monitoring and Research—Actions

Conduct mandated surveys and some baseline monitoring on high-priority tracts.

Periodically complete vegetation line transects at a limited number of tracts to track progress of management activities to improve native prairie.

Complete 4-square-mile waterfowl pair counts.

Monitor all conservation easements; enforce only high-priority violations.

Collect baseline vegetation and migratory bird data.

Conduct mandated surveys and some baseline monitoring on highand medium-priority tracts.

Periodically complete vegetation line transects at a limited number of tracts to track progress of management activities to improve native prairie.

Complete 4-square-mile waterfowl pair counts.

Conduct colonial bird counts and biweekly waterfowl counts.

Monitor the effects of management and restoration on migratory birds.

Increase collection of baseline vegetation and migratory bird data of all refuge habitats.

Conduct mandated surveys and baseline monitoring.

Increase monitoring of grasslands, wetlands, and wildlife. Expand vegetation transects on native prairie to include more refuge units and do annually.

Conduct waterfowl population and density, upland bird, other migratory bird, and deer surveys. Conduct a reptile and amphibian inventory

Monitor water quality to assess upstream threats.

Conduct specific research to answer management questions, including research on reseeding uplands to native mixes and on migratory bird response to large-scale wind farms.

Monitoring and Research—Environmental Consequences

Although limited, any information gathered would be beneficial to the staffs in analysis of management needs.

The additional monitoring and research would lead to improved habitat conditions and health of migratory and resident species that use refuge lands.

Same as alternative B.

Cultural Resources—Actions

Conduct cultural resource evaluations in response to activities that are "undertakings" under section 106 of the NHPA.

Comply with cultural resource laws including protection, when possible, of resources eligible for the National Register of Historic Places.

Same as alternative A.

Same as alternatives A and B, plus the following.

Develop educational programs and interpretive opportunities for the public.

ALTERNATIVE A

Current Management (No Action) Current funding, staff, and programs.

ALTERNATIVE B

Moderately Enhanced Management (Proposed Action)

Management of high- and medium-priority habitats. Improved visitor services.

ALTERNATIVE C

Enhanced Management

Intensive habitat management with migratory bird emphasis. Management of all uplands. Improved and expanded visitor services and outreach.

Cultural Resources—Environmental Consequences

Cultural resources that would be potentially affected by an undertaking would be identified and, if significant, preserved when possible.

Same as alternative A.

Same as alternatives A and B, plus the following.

More of the public would learn about cultural resources in the refuges.

Visitor Services—Actions

Conduct visitor services events such as teacher workshops on a multiyear rotation among refuges.

Occasionally update brochures and publications.

Occasionally do media outreach.

Explore ice-fishing opportunities at Lake Alice NWR.

Conduct visitor services events such as teacher workshops and waterfowl identification on a 3-year rotation among refuges.

Improve and expand programs for youth and conservation groups on a 3-year rotation.

Start and expand environmental education programs for Kellys Slough and Lake Alice NWRs.

Annually review brochures and publications; complete updates as needed.

Develop "friends groups" associated with the refuges.

Do limited outreach to wildlife groups, conservation and community groups, and teachers and students.

Annually conduct media outreach.

Construct a new administration and learning center for Audubon NWR.

If the opportunity arises, restore visitor service facilities at Lake Alice NWR. Construct new kiosks and interpretive panels at Lake Alice NWR.

Same as alternative B, plus the following.

Develop outdoor classroom activities.

Annually review and renew brochures and publications. Develop new publications and educational materials.

Conduct outreach to include partner and conservation groups, wildlife clubs, teachers and students, and community groups.

Enhance visitor services and add interpretive displays.

ALTERNATIVE A

Current Management (No Action)
Current funding, staff, and programs.

ALTERNATIVE B

Moderately Enhanced Management (Proposed Action)

Management of high- and medium-priority habitats. Improved visitor services.

ALTERNATIVE C

Enhanced Management

Intensive habitat management with migratory bird emphasis. Management of all uplands. Improved and expanded visitor services and outreach.

Visitor Services—Environmental Consequences

Opportunities would continue at or near existing levels.

Through additional workshops, brochures, and exhibits, the public and school groups would better understand species and habitat relationships and the mission of the Refuge System.

The establishment of visitor centers and contact stations would increase public visitation and knowledge of the refuges.

There may be irreversible damage to relatively small areas of vegetation due to facility construction. Construction equipment may cause short-term disturbance to wildlife. Same as alternative B.

Partnerships—Actions

Continue at the current level of partnerships with the public, adjacent landowners, and school groups to promote the mission of the Refuge System.

Continue coordination with the NDGF to help in the management of hunting and fishing programs at current open refuges (Audubon and Lake IIo).

Same as alternative A, plus the following.

Begin the study of a "friends group," expand partnerships with universities, and improve relations with neighbors.

Same as alternatives A and B, plus the following.

Expand and improve existing partnerships with the local public and NDGF. Develop new partnerships to benefit mutual programs.

Partnerships—Environmental Consequences

Without new partnerships, the refuges would be unable to meet future demands from the public for visitation and public education. Monitoring and research would remain at the current level without the ability to expand into needs analyses.

Expanded partnerships would enable the refuges to meet the needs of visitors.

Partners would help staff in monitoring and research, which would expand the knowledge of habitat management and restoration. Same as alternative B.

ALTERNATIVE A

Current Management (No Action) Current funding, staff, and programs.

ALTERNATIVE B

Moderately Enhanced Management (Proposed Action) Management of high- and medium-priority

habitats. Improved visitor services.

ALTERNATIVE C

Enhanced Management

Intensive habitat management with migratory bird emphasis. Management of all uplands. Improved and expanded visitor services and outreach.

Operations—Actions

Maintain current staff, equipment, and other resources.

Increase resources to accomplish moderate enhancement of refuge programs.

Provide law enforcement for visitor safety and facility and wildlife protection.

Increase resources to accomplish all mandates and other projects to enhance the mission of the Refuge System.

Provide law enforcement for visitor safety and facility and wildlife protection.

Operations—Environmental Consequences

Current levels of operation would be maintained.

Property and equipment would be safe and workable, but refuges would lack state-of-the-art equipment for habitat improvement.

The refuge staffs would have the resources necessary to improve habitats and management for migratory species.

New improvements and accessibility would increase the value and usability of the refuges to visitors.

Same as alternative B.